

Appl. No. 10/555,144

Attorney Docket No. 10555-112

III. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested. Claims 1 and 18 have been amended. Claims 11 and 25 have been cancelled and claims 27 and 28 have been amended.

After entering this amendment, claims 1-10, 12-24 and 26-28 remain pending.

Specification

In the Office Action, the Examiner objected to the specification because the title was deemed not descriptive. The title has been amended as suggested to rectify this objection.

Claim Objections

Claim 1 was objected because of informalities. Claim 1 has been amended as suggested in the Office Action to correct these informalities. Accordingly, it is believed that this objection is now moot and should be withdrawn.

Double Patenting

The Examiner provisionally rejected claim 1 on the grounds of nonstatutory obviousness-type double patenting over some claims of copending Application No. 10/636,878. Applicants respectfully traverse this rejection. The claims of the instant application and Application No.

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10/836,878 have been amended. For the reasons discussed below, the inventions claimed in Application No. 10/836,878 and in the instant application are patentably distinct, therefore no terminal disclaimer is warranted.

Claim Rejections - 35 U.S.C. § 102(b)

Claims 1, 2, 4, 8, 9, 11, 14-19, 21, 25, and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,794,631, to Clark ("Clark"). Applicants respectfully traverse these rejections.

It is noted that claim 1 has been amended to recite that a first bandgap grading layer is positioned between the semiconductor passivation layer and the semiconductor absorption layer and a second bandgap grading layer is positioned between the semiconductor absorption layer and the second semiconductor contact layer. Additionally, claim 1 has been amended to recite that the second bandgap grading layer is directly adjacent to the second semiconductor contact layer.

Claim 18 has been similarly amended. Claim 18 has been amended to recite the steps of depositing a first bandgap grading layer between the lower semiconductor contact layer and the semiconductor absorption layer and depositing a second bandgap grading layer between the semiconductor absorption layer and the semiconductor passivation layer. Additionally, claim 18 has been amended to recite that the first bandgap grading layer is directly adjacent to the lower semiconductor contact layer.

A careful reading of Clark will reveal that Clark does not disclose that the second bandgap grading layer of claim 1 (which is equivalent to the first



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bandgap grading layer of claim 18) is directly adjacent to the second semiconductor contact layer of claim 1 (which is equivalent to the lower semiconductor contact layer of claim 18).

It is true that Clark does disclose a grading layer, however, this layer is not directly adjacent to the second (or lower) semiconductor contact layer. More specifically, in Clark, a multiplication layer is between grading layer and the semiconductor contact layer. Therefore, since not all the elements of amended claims 1 and 18 are disclosed in Clark, the rejection under 35 USC 102 is improper and should be withdrawn.

With respect to claims 2, 4, 8, 9, 14-17, 19, 21 and 26, these claims are dependent on claims 1 or 18 and are therefore patentable for at least the same reasons as given above in support of claims 1 and 18. Accordingly, allowance of this claim is respectfully requested.

Claim Rejections - 35 U.S.C. §103(a)

Claims 3, 7, 12, 20, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of U.S. Patent No. 6,635,908 to Tanaka, et al. ("Tanaka"). Applicants respectfully traverse this rejection.

With respect to claims 3, 7, 12, 20, and 24, these claims are dependent on claims 1 or 18 and are patentable for at least the same reasons as given above in support of claims 1 and 18. Accordingly, allowance these claims is respectfully requested.



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Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

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Date

Respectfully submitted,


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Attachments: None



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